Claims

1. Liquid embolizate, in particular for the occlusion of vascular malformations, consisting of

(a) 20 – 80 % v/v of an occlusion mixture containing a zein emulsion in aqueous ethanol,

(b) 10 – 40 % v/v of a radiopaque contrast medium in liquid form and

(c) 10 – 40 % v/v of ethanol,

with components (a), (b) and (c) being available separately and mixed, immediately before application takes place, to form a homogenous emulsion.

2. Embolizate according to claim 1, characterized in that components (b) and (c) are provided at a volume ratio ranging between 1:2 and 2:1, preferably at equal volume fractions.

3. Embolizate according to claims 1 or 2, characterized in that it consists of 30 – 70 % v/v of component (a) and of 15 – 35 % v/v each of components (b) and (c).

4. Embolizate according to any of the above claims, characterized in that component (a) contains a zein emulsion in aqueous alcohol, a radiopaque contrast medium, and a vegetable oil.

5. Embolizate according to any of the above claims, characterized in that component (a) consists of Ethibloc® and component (b) of Lipiodol®.

6. Embolizate according to any of the above claims, in a form ready for application, produced by homogenization of component (a), admixing with it component (b) and admixing of component (c) with the mixture comprising (a) and (b), with all these steps being carried out in the absence of air.

7. Method for the production of a liquid embolizate according to any of the above claims, characterized in that, in the absence of air, component (a) is homogenized, component (b) admixed with component (a) and component (c) is admixed to the mixture comprising components (a) and (b).

8. Method according to claim 7, characterized in that the mixing process takes place under vacuum.

9. Method according to claim 7, characterized in that the elimination of air is achieved by centrifuging.

10. Method according to claim 7, characterized in that components (a), (b) and (c) are available in separately packed form and are intermixed with the help of a mixing system.

11. Method according to claim 10, characterized in that the components (a), (b) and (c) are made available drawn-up into syringes.

12. Method according to claim 10 or 11, characterized in that the mixing system is a three-way cock.

13. Application of the embolizate according to any one of the claims 1 to 6 for the occlusion of vessels and vascular malformations.

14. Application according to claim 9, characterized in that the vascular malformations are aneurysms or arteriovenous short circuits.

15. Medical kit for application according to claims 9 or 10, characterized in that said kit contains the components (a), (b) and (c) according to any one of the claims 1 to 5 at a predetermined volume ratio as well as a mixing system.

16. Medical kit according to claim 15, characterized in that said kit contains the components (a), (b) and (c) drawn up into disposable, single-use syringes, a three-way cock and at least one empty syringe which accommodates the readily prepared mixture.